STATUS DECISION OF CONTROLLED AND NON-CONTROLLED SUBSTANCE(S)

Substance: Propionanilide

Based on the current information available to the Office of Controlled Substances, it appears that the above substance is:

- Controlled  
- Not Controlled

under the schedules of the *Controlled Drugs and Substances Act* (CDSA) for the following reason(s):

- The substance does not contain the core structural features of the fentanyl and therefore cannot be included under item 16 of Schedule I to the CDSA.

Prepared by: ____________________________  Date:  May 24, 2011

Zack Li

Verified by: ____________________________  Date:  ____________

Mark Kozlowski

Approved by: ____________________________  Date:  ____________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Wissam Sader, OCS
Drug Status Report

**Drug:** Propionanilide

**Drug Name Status:** Propionanilide is the common name.

**Chemical Name:** N-phenylpropionamide

**Chemical structure:**

![Chemical structure of Propionanilide](image)

**Molecular Formula:** $C_9H_{11}NO$

**CAS RN:** 620-71-3

**Pharmacological class / Application:** Pharmaceutical-related substance

**International status:**

US: Propionanilide is not listed on the schedules to the US Controlled Substances Act and is not mentioned anywhere on the DEA website. However fentanyl, of which propionanilide is a degradation product, is controlled under the CSA.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control, the Green List - List of Psychotropic Substances under International Control, nor the Red List - List of Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control.
Canadian Status: Propionanilide is not listed in the schedules to the CDSA. The substance has been reported in the scientific literature to be a degradation product of fentanyl, which is currently controlled under item 16(5) of Schedule I to the CDSA under the heading “Fentanyls, their salts, derivatives, and analogues and salts of derivatives and analogues, including:”. However, the substance does not have the core structure of the fentanyls (shown below) and a review of recent status decisions on other such substances have concluded that a substance must contain the core structure of the fentanyls to be included under item 16 of Schedule I to the CDSA:

![Chemical Structure](image)

where \( R \) = ethyl group substituted variously at the 1 and 2 position
\( R_1 \) = hydrogen, methoxymethyl or carboxylate alkyl ester
\( R_2 \) = phenyl or substituted phenyl
\( R_3 \) = alkyl
\( R_4 \) = hydrogen or alkyl

As such, propionanilide is not considered to fall under the heading of item 16 of Schedule I to the CDSA.

**Recommendation:** Propionanilide is not included in the Schedules to the CDSA and is not a controlled substance.

**Date:** May 24, 2011

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